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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/506,347	02/17/2000	Hideki Nakata	10873.498UAS01	7014
23552	7590	02/10/2004	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			LE, KIMLIEN T	
			ART UNIT	PAPER NUMBER

2653

DATE MAILED: 02/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/506,347

Applicant(s)

NAKATA ET AL.

Examiner

Kimlien T Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,28 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,28 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 18-21.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

Figures 23-26 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negative by the manner in which the invention was made.

Claims 1, 3-8, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in Figures 23 and 24 in view of Hiroshi (JP 5-314535)

With regard to claim 1, Applicant's admitted prior art shows a method of manufacturing an optical head comprising a light source, an objective lens, a reflecting mirror (126) that reflects beams of light from the light source (101) to allow them to enter the objective lens (105), and an optical bench (125) for maintaining the light source and the reflecting mirror (126), the method comprising: placing the reflecting mirror on the optical bench; bonding and fixing the reflecting mirror and the optical bench (Figs. 23 and 24). Applicant's admitted prior art does not show placing the reflecting mirror and the optical bench on an external jig provided with a mirror holding portion for maintaining the reflecting mirror; with a reflecting plane of the reflecting

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mirror in contact with the mirror holding portion so as to specify a mounting angle of the reflecting mirror in a plane including an axis of light incident on and an axis of light reflected from the reflecting mirror, and after bonding and fixing the reflecting mirror and the optical bench demounting the optical head having the light source, the reflecting mirror, and the optical bench from the external jig. However, Hiroshi shows in Figures 4-7 placing the reflecting mirror (6) and the optical bench on an external jig (13) provided with a mirror holding portion (131) for maintaining the reflecting mirror; bonding and fixing the reflecting mirror and the optical bench, with a reflecting plane of the reflecting mirror in contact with the mirror holding portion so as to specify a mounting angle of the reflecting mirror in a plane including an axis of light incident on and an axis of light reflected from the reflecting mirror, and after bonding and fixing the reflecting mirror and the optical bench, demounting the optical head having the light source, the reflecting mirror, and the optical bench from the external jig (Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the mirror of Applicant's admitted prior art using the external jig as taught by Hiroshi. The rationale is as follows: One of ordinary skill in the art at the time of the invention would have been motivated to provide Applicant's admitted prior art with the external jig as shown by Hiroshi because an even and sure adhering job is fixed that prevents the coating drift of an adhesive and the deterioration and the variance of the adhesive strength that are caused by overflow of the adhesive when a reflecting member is fixed.

With regard to claim 3, Applicant's admitted prior art and Hiroshi show all the steps of claim 3 including a mounting angle of the reflecting mirror about an axis of light incident on the

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objective lens is specified by bringing the reflecting mirror into contact with an angle reference plane of the mirror holding portion (Figure 7 of Hiroshi).

With regard to claim 4, Applicant's admitted prior art and Hiroshi show all the steps of claim 4 including a position of the reflecting mirror in a direction parallel to a reflecting plane of the reflecting mirror is specified by bringing the reflecting mirror into contact with the mirror holding portion (Figure 7 of Hiroshi).

With regard to claim 5, Applicant's admitted prior art and Hiroshi show all the steps of claim 5 including the reflecting mirror is not brought into direct contact with the optical bench (Abstract of Hiroshi).

With regard to claim 6, Applicant's admitted prior art and Hiroshi show all the steps of claim 6 including the reflecting mirror is bonded and fixed at vicinities of approximate centers of its two opposed side faces approximately orthogonal to a reflecting plane of the reflecting mirror (Figure 4 of Hiroshi).

With regard to claim 7, Applicant's admitted prior art shows the reflecting mirror has a flat-plate shape.

With regard to claim 8, Applicant's admitted prior art shows that the reflecting mirror and the optical bench are bonded and fixed using a UV adhesive (Fig. 24; column 2, lines 35-37).

With regard to claim 28, Applicant's admitted prior art and Hiroshi show all the steps of claim 28 including the mirror holding portion includes a positioning wall (132) along an optical axis direction of the light source and positions the reflecting mirror in the optical axis direction of the light source by bringing the reflecting mirror into contact with the positioning wall (Abstract).

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With regard to claim 30, Applicant's admitted prior art shows in Figure 23 that the optical bench includes a positioning wall along a direction perpendicular to an optical axis of the light source and positions the reflecting mirror in the direction perpendicular to the optical axis of the light source by bringing the reflecting mirror into contact with the positioning wall.

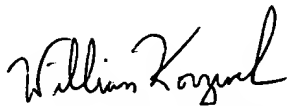
Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimlien Le whose telephone number is 703-305- 3498. The examiner can normally be reached on Monday-Friday from 8A.M to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 703-305-6137. The fax phone number is 703-308-6606

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Kimlien Le


WILLIAM KORZUCH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600